SPECIAL AIRWORTHINESS INFORMATION BULLETIN

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http://www.faa.gov/aircraft/safety/alerts/SAIB

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts you, owners and operators of **Wytwornia Sprzetu Komunikacyjnego (WSK) "PZL-RZESZOW" - Spolka Akcyjna, Franklin 4A-235 series and 6A-350 series engines**, to possible abnormal gear tooth wear when you use original Franklin Engine Company parts with certain parts manufactured by Wytwornia Sprzetu Komunikacyjnego PZL-Rzeszow (PZL). Abnormal wear could occur on the gears that drive the oil pump or the fuel pump, resulting in reduced or no engine oil pressure or fuel flow. These engines may be installed on airplanes listed in table 1, as well as in some experimental aircraft. Some of these installations were accomplished through FAA Supplemental Type Certificates.

TABLE 1

Manufacturer	Model
Aermacchi (Siai-Marchetti)	S.205-22/R
Cessna	170, 172, 175
Maule	M-4-220, -220C, -220S, -220T and M-5-220C
SOCATA	MS894A, MS894E,
Swift	GC-1B
Univair (Stinson)	108 series

Background

Franklin Engine Company (Franklin) of Syracuse, New York went out of business in the mid-1970's. Ownership of the Franklin engine type certificates was subsequently transferred to PZL of Rzeszow, Poland. Since that time, PZL has manufactured some replacement parts for the 4A-235 series and 6A-350 series engines including camshafts, oil pumps, and a rotary-type fuel pump. As a result of field experience with abnormal gear wear, PZL issued service bulletin (SB) No. PZL-F/69/2002 and SB No. PZL-/F/75/2003. These SBs recommend specific actions to ensure correct oil pump and fuel pump drive gear operation.

SB PZL-F/69/2002 provides information for replacing camshafts and oil pumps. The oil pump is gear driven from the camshaft. The SB recommends that when you install a PZL manufactured camshaft, you should also install a PZL manufactured oil pump, or that you replace the drive gear on the oil pump with a PZL manufactured drive gear. Similarly, if you install a PZL oil pump in an engine with an original Franklin camshaft, you should replace the PZL manufactured oil pump drive gear with a Franklin manufactured one. **The goal is to install a camshaft and an oil pump drive gear manufactured by the same company.**

SB PZL-F/75/2003 provides information for installing a rotary-type fuel pump onto any Franklin manufactured 4A-235 series or 6A-350 series engine. When you install this rotary fuel pump, you must install a new PZL supplied drive adaptor. PZL has reported one case where the gear on the pump drive adaptor was incompatible with the mating gear inside the engine.

If you install a PZL rotary type fuel pump in a Franklin manufactured engine, SB PZL-F/75/2003 recommends checking the diametral pitch of the mating gears or replacing the gear on the PZL rotary pump drive adaptor with a Franklin manufactured diaphragm pump drive adaptor. SB PZL-F/76/2003 provides instructions for changing the gear on the rotary pump drive adaptor.

Recommendation

To prevent possible abnormal gear wear and loss of drive to the oil pump or the PZL rotary type fuel pump, we recommend that you comply with PZL's SBs PZL-F/69/2002 and PZL-/F/75/2003. These SBs provide more detailed information about this subject including related component part numbers.

For Further Information Contact

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